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APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
09/891,338	06/26/2001	Dwip N. Banerjee	AUS9-2000-0839-US1	2232
7590 11/16/2004			EXAMINER	
Edmond A. DeFrank 20145 VIA MEDICI Northridge, CA 91326			GEREZGHER, YEMANE M	
			ART UNIT	PAPER NUMBER
			2144	
DATE MAILED: 11/16/2004				

Please find below and/or attached an Office communication concerning this application or proceeding.

Office Action Summary

Application No.

09/891,338

Applicant(s)

BANERJEE, DWIP N.

Examiner

Yemane M Gerezgiher

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-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --
Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If the period for reply specified above is less than thirty (30) days, a reply within the statutory minimum of thirty (30) days will be considered timely.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

Status

- 1) ☒ Responsive to communication(s) filed on 26 June 2001.
- 2a) ☐ This action is **FINAL**. 2b) ☒ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

Disposition of Claims

- 4) ☒ Claim(s) 1-20 is/are pending in the application.
- 4a) Of the above claim(s) _____ is/are withdrawn from consideration.
- 5) ☐ Claim(s) _____ is/are allowed.
- 6) ☒ Claim(s) 1-20 is/are rejected.
- 7) ☐ Claim(s) _____ is/are objected to.
- 8) ☐ Claim(s) _____ are subject to restriction and/or election requirement.

Application Papers

- 9) ☐ The specification is objected to by the Examiner.
- 10) ☒ The drawing(s) filed on 26 June 2001 is/are: a) ☒ accepted or b) ☐ objected to by the Examiner.
Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).
Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).
- 11) ☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

Priority under 35 U.S.C. § 119

- 12) ☐ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
- a) ☐ All b) ☐ Some * c) ☐ None of:
1. ☐ Certified copies of the priority documents have been received.
2. ☐ Certified copies of the priority documents have been received in Application No. _____.
3. ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).
- * See the attached detailed Office action for a list of the certified copies not received.

Attachment(s)

- 1) ☒ Notice of References Cited (PTO-892)
- 2) ☐ Notice of Draftsperson's Patent Drawing Review (PTO-948)
- 3) ☐ Information Disclosure Statement(s) (PTO-1449 or PTO/SB/08)
Paper No(s)/Mail Date _____
- 4) ☐ Interview Summary (PTO-413)
Paper No(s)/Mail Date. _____
- 5) ☐ Notice of Informal Patent Application (PTO-152)
- 6) ☐ Other: _____

DETAILED ACTION

1. This application has been examined. Claims 1-20 are pending.

Claim Rejections - 35 USC § 112

2. The following is a quotation of the second paragraph of 35 U.S.C. 112:

The specification shall conclude with one or more claims particularly pointing out and distinctly claiming the subject matter which the applicant regards as his invention.

3. Claims 1-20 are rejected under 35 U.S.C. 112, second paragraph, as being indefinite for failing to particularly point out and distinctly claim the subject matter which applicant regards as the invention.

The inventive entity recites "...providing a socket having a virtual connection between first server process on the network server and the computer network" (Claim 1, Claim Lines 2-3), "...plurality of sockets for providing a virtual connection between a computer and a computer network" (Claim 7, Claim Lines 3-4), "...providing virtual connections between processes executing on the processor and the computer network" (Claim 13, Claim Lines 2-3) and "...create a virtual connection to transfer data between a first application process residing on a computer and a computer network" (Claim 20, Claim Lines 3-4). It is not clear what the inventive entity is trying to encompass by making

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use of the term "computer network" where the virtual connection (socket) is established between the application process running on a computer and the computer network as recited in the claims disclosed above. For clarity reason, a socket is known as a mechanism for creating a virtual connection between processes or applications (it is a two way connection between two applications running on the Internet). Thus, it is not clear where in the network the other endpoint in the "computer network" the virtual connection is to be made. However, for examination purpose the examiner will broadly interpret the limitation in the claims to mean a virtual connection between an application process running on a computer/server and another application(s) running on a client computer(s) on the computer network.

Claim Rejections - 35 USC § 102

4. The following is a quotation of the appropriate paragraphs of 35 U.S.C. 102 that form the basis for the rejections under this section made in this Office action:

A person shall be entitled to a patent unless -

(e) the invention was described in (1) an application for patent, published under section 122(b), by another filed in the United States before the invention by the applicant for patent or (2) a patent granted on an application for patent by another filed in the United States before the invention by the applicant for patent, except that an international

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application filed under the treaty defined in section 351(a) shall have the effects for purposes of this subsection of an application filed in the United States only if the international application designated the United States and was published under Article 21(2) of such treaty in the English language.

5. Claims 1-20 are rejected under 35 U.S.C. 102(e) as being anticipated by Raghunathan et al. (US Publication Number US 20020120716 A1) hereinafter referred to as Raghunathan.

As per claims 1, 6, 7, 13 and 20, Raghunathan disclosed multi-threaded model transferring data by creating plurality of sockets ("a socket pool" sockets determined to be not in use (as in claim 4)) and plurality of threads creating virtual connections between clients and a server serving client requests (see page 4, paragraphs [0059] through Paragraph [0063]) where each one of the threads from the pool of threads monitoring data request in the pool of sockets where each thread from the thread pool was assigned and connected with one of the available sockets in the pool of sockets using a FIFO or any other suitable scheme(claims 3, 5, 8-10, 15 and 17-19, See Figure 6 and Page 4, paragraph [0070]) by assigning multiple resources (sockets and threads), serving plurality of requests received from plurality of clients (claim 16) wherein a socket is not tied up with the thread after the thread finished processing the request ("no socket engages a worker thread for too long") see Page 4, paragraph [0068]through Paragraph [0070] . Raghunathan

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disclosed a transaction manager module managing transmitting data in parallel using the pluralities of sockets and the pluralities of threads concurrently processing client requests improving the response time for the clients requesting and improving the response time for the server providing the contents requested by the clients. See Fig. 6 and Page 4, Paragraphs [0062] and [0063]. Raghunathan further disclosed dividing data into data unites (claims 11 and 14) and where the data were incoming requests divided into data units as claimed in claim 12. See Page 4, Paragraph [0059] and Page 5, Paragraph [0076].

Conclusion

6. The prior art made of record and not relied upon is considered pertinent to Applicant's disclosure.

- a. Riedmann; JohnUS 6802065 B1 System and methods for permitting access to a singular network process by multiple user processes
- b. Kessner (US 6754701 B1) entitled: "Use of a single thread to support multiple network connections for server load testing"

- c. Chao et al. (US 6622159 B1) entitled: "Method, apparatus and computer program product for automatically restarting an RPC server without losing client RPC calls"
- d. Banerjee (US 20020199000 A1) entitled: "Method and system for managing parallel data transfer through multiple sockets to provide scalability to a computer network"
- e. Williams et al. (US 20020156835 A1) entitled: "Multiple browser interface"
- f. Srikantan, Geetha et al. (US 20010029548 A1) entitled: "Method and apparatus for handling events received at a server socket"
- g. Ault et al. (US 6192389 B1) entitled: "Method and apparatus for transferring file descriptors in a multiprocess, multithreaded client/server system"
- h. Hwang et al. (US 5941950 A) entitled: "Socket binding method in communication system using socket function"
- i. Nakata et al. (US 5854841 A) entitled: "Communication system"
- j. Hanif et al. (US 5796954 A) entitled: "Method and system for maximizing the use of threads in a file server for processing network requests"

NON PATENT DOCUMENTS

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k. Girija et al. "Pthreads for dynamic parallelism",
Technical Report CMU-CS-98-114, Computer Science
Department, Carnegie Mellon University, April 1998.

l. D. C. Schmidt, "Acceptor and Connector: Design
Patterns for Initializing Communication Services," in
Pattern Languages of Program Design (R. Martin, F.
Buschmann, and D. Riehle, eds.), Reading, MA: Addison-
Wesley, 1997.

m. T. J. Hacker, "The End-to-End Performance Effects of
Parallel TCP Sockets on a Lossy Wide-Area Network", Aug.
2001.

7. Any inquiry concerning this communication or earlier
communication from the examiner should be directed to Yemane
Gerezgiher whose telephone number is (571) 272-3927. The
examiner can normally be reached on Monday- Friday from 9:00 AM
to 6:00 PM.

If attempts to reach the examiner by telephone are
unsuccessful. The examiner's supervisor, William Cuchlinski,
can be reached at (571) 272-3925.

Yemane M. Gerezgiher
AU 2144

MARC D. THOMPSON
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